

specifically declined to adopt a collocation requirement as a component of its working definition of ONA.<sup>55</sup>

Thus, any reliance on the Georgia MemoryCall Order's "finding" of discrimination in BellSouth's not permitting others to collocate in its central offices is seriously misplaced.

C. The "Timing of Unbundling" Issue

Like the two issues above, the "timing of unbundling" finding is unsupported by a fair reading of the record in the Georgia proceeding. The "finding" is based on the application of a previously unarticulated service availability expectation, a mischaracterization of testimony from the hearing, and a misapplication of the FCC's CEI and ONA unbundling requirements. Thus, like the two issues before it, this "finding" provides no evidence of access discrimination by BellSouth in its MemoryCall service introduction.

---

<sup>55</sup> See, Review of Open Network Architecture (ONA), Docket No. 4018-U, released Sept, 29, 1993:

The Commission is thus satisfied that the concept of ONA as reflected in the ONA model is sufficient for our consideration of the tariff before us. . . . The record indicates that there are a number of pending dockets now before the FCC which may result in mandated interconnection, including full collocation. . . . Expansion of the definition of ONA should be deferred pending those proceedings.

Id., at 4-5.

First, this "finding" was based in part on the same type of analysis that supported the first "finding" above. Testimony that unbundled call forwarding features previously had been requested was viewed as sufficient to have obligated BellSouth to provide them, without consideration of whether there was any market demand to support such an offering. Not only is this concept untenable as a matter of prudent decisionmaking, but it also was a novel expression of the PSC's regulatory expectations.

Second, relying on the brief of an opposing party, the order misinterprets the testimony of BellSouth's witness, attributes the distorted meaning to him, and then criticizes him for it.<sup>56</sup> Thus, BellSouth is castigated for purportedly viewing ONA only as an obligation to make new unbundled services available when its own enhanced service uses them. When placed in its proper context, however, it is clear that the BellSouth witness's statement was simply an articulation of the CEI standard that is a component of this Commission's ONA framework.<sup>57</sup> Further, as the witness added, BellSouth

---

<sup>56</sup> See, Georgia MemoryCall Order, at n.20, citing the post hearing brief of Cox Enterprises, which quoted a small portion of BellSouth's witness's testimony: "ONA says when we use those services ourselves, we are required to make them available."

<sup>57</sup> See, e.g., Georgia MemoryCall Proceeding Transcript at 532:

The strict requirement of ONA, if you're familiar with our CEI plans and what we're asked to do, is that when we were going to offer any enhanced service, we

(continued...)

had already gone beyond the CEI obligation and had begun making the new features available across its region well in advance of any widespread MemoryCall service deployment.<sup>58</sup> For this, BellSouth was inexplicably chastised "because of what it may well signal with respect to [BellSouth's] purported commitment to a proper Open Network Architecture program."<sup>59</sup> Again, there is no basis for relying on this third "finding" as an indicator of likely access discrimination by any BOC.

\* \* \* \* \*

---

<sup>57</sup> (...continued)  
had to make the services that our enhanced services were going to use [available] on the same terms and conditions to anybody else, which we've always done.

<sup>58</sup> Id. In fact, the witness had earlier testified to the same effect:

As far as ONA goes, you know, we are committed to deploying the ONA features regardless of what this Commission does with MemoryCall, so in some ways I see those as separate issues. It is true that MemoryCall does buy from the tariff certain ONA services like SMDI, just as anyone else could. But we have already filed and this Commission has already approved a number of ONA services, such as call forward busy line, don't answer, which y'all approved on a statewide basis in December of 1989. So ONA is really just a series of tariffs that provide new features that people have indicated that they wanted.

Id., at 461-62.

<sup>59</sup> Georgia MemoryCall Order, at 33.

In short, the MemoryCall decision should be viewed for what it is -- an anomalous order<sup>60</sup> reflecting the Georgia PSC's response, without the guidance of any previously adopted or enunciated rules or requirements of its own, to incumbent competitors' fears associated with BellSouth's attempt to introduce an innovative voice messaging service on a nonregulated basis. BellSouth complied with all known requirements for its service introduction and even went beyond them. As shown above and in the record of the Georgia proceeding, BellSouth did not engage in "access discrimination" in its introduction of MemoryCall service. Any attempts to rely on that decision as evidence of potential BOC abuses must be rejected.

---

<sup>60</sup> As the Georgia MemoryCall Order reflects, a number of other underlying issues also may have influenced both the nature and substance of that decision. For example, BellSouth and the Georgia PSC had been engaged in a long-running disagreement over the PSC's authority to compel BellSouth to submit to it competitively sensitive information, given the PSC's admitted position that it was not permitted to withhold any such submitted information from public disclosure under Georgia's open records laws. That disagreement is evident in the Order's discussion of BellSouth's submission of MemoryCall's underlying costs and cost structure. See, e.g., Georgia MemoryCall Order, at 41-42. This issue has since been resolved in BellSouth's favor in Georgia courts. Another underlying issue was a disagreement between BellSouth and the PSC with respect to the scope of the PSC's legal authority to regulate MemoryCall in the first instance, given the FCC's apparent preemption in Computer III of state regulation of enhanced services when MemoryCall was first introduced, and the subsequent disagreement over the jurisdictional nature of MemoryCall service following the California I decision. An appropriate appreciation of influences such as these, while not necessarily dispositive of the matter, is useful for placing the Georgia decision in its proper context and reading between the lines of the purported "findings."

IV. The Net Benefits of Structural Relief Outweigh Any Benefits of Separate Subsidiaries

A. Experience And Market Data Demonstrate The Benefits Of Structural Relief.

Since the Commission initiated its inquiry into the relative costs and benefits of structural relief versus those of structural separation requirements in the Computer III proceeding, the benefits side of the equation has never been much in doubt. The history of that proceeding is replete with examples of benefits to the American public that could be brought about by more efficient, integrated operations of the BOCs' enhanced service activities. In contrast, it has been the adequacy of the safeguards imposed on such integrated operations that has been the more difficult issue with which to contend. As shown above, however, the case can clearly be made that the Commission's existing ONA safeguards adequately protect against access discrimination concerns. As shown below, the evidence of the benefits of structural relief is even more compelling now than it was at the time of the Commission's past considerations of this issue.

There are three aspects of the benefits analysis that are significant in this review. First is the evidence of the direct impact structural relief has had on the BOCs' ability to provide services in previously underserved markets. The second important aspect is the degree to which the BOCs' participation in particular markets has provided

secondary benefits both to consumers in those markets and to the economy as a whole. The third important aspect of this review is that all of these benefits have been brought to bear with no negative impact on other competitors in the marketplace. In fact, the evidence demonstrates that the enhanced service industry continues to be one of the most robust segments of the American economy.<sup>61</sup>

The history of the BOCs' participation in underserved markets is well chronicled. Prior to the Computer III proceeding, the Commission had denied AT&T's request for authority to offer voice messaging type services integrated with its network service offerings, based on the Commission's expectation that other providers would fill the existing void for residential voice messaging services.<sup>62</sup> As history shows, the Commission's expectation was never fulfilled and the mass market for residential voice messaging services went largely unmet.

In contrast, since the BOCs began offering network based voice messaging services pursuant to CEI plans, over five million customers are now being served. In BellSouth's region alone, subscribership has grown from a base of zero in early 1989 to nearly 1.3 million subscribers in January

---

<sup>61</sup> U.S. Industrial Outlook 1994, U.S. Department of Commerce, 25-1.

<sup>62</sup> American Telephone and Telegraph Company Petition for Waiver of Section 64.702 of the Commission's Rules and Regulations, 88 FCC2d 1 (1981).

of this year. Of those, approximately 96% are residential customers.

That there was an existing but unmet need for mass market voice messaging services is confirmed by the rapid growth in BellSouth's penetration rate<sup>63</sup> for its MemoryCall service. In only six years of availability, MemoryCall service's penetration is 10.1%. In comparison, only four of the eighteen vertical services offered by BellSouth to residential customers have higher penetrations. And, of those four, only one, CLASS Call Return (16.4% penetration) was introduced within the last ten years. The remaining three, Touchtone (66%), Call Waiting (55.4%), and Three Way Calling (11.1%), have been available for much longer. The rapid rise of MemoryCall service to the top of the penetration charts demonstrates the desirability of network based voice messaging services.

Additionally, this growth has not come at the expense of incumbent telemessaging service providers. Rather, the primary competition for residential voice messaging service is the home answering machine. Indeed, evidence in the Georgia MemoryCall proceeding indicated that less than two percent of the incumbents' then existing customer base were residential subscribers when BellSouth first introduced

---

<sup>63</sup> Penetration rate is the percentage of customers to whom a service is available who have subscribed to the service. Rates shown are for residential customers only.

MemoryCall service.<sup>64</sup> In contrast, approximately 28% of residential phone customers had answering machines. Thus, the introduction of network based voice messaging services for mass market residential customers responded to a need that was not being met by incumbent service providers.

In addition to the direct benefit to individual subscribers of the BOCs' voice messaging services, the evidence indicates that more widespread benefits are also being realized. Consumer knowledge and demand have been greatly stimulated by the availability of BOC voice messaging services, both those of BellSouth as well as those of other LECs nationwide. Industry experts have projected that growth in the overall voice messaging industry will continue to be spurred in large part by the BOCs' impetus in residential subscriber growth. By 1999, voice messaging service subscribership is predicted by some analysts to exceed 22.7 million mailboxes.<sup>65</sup>

Increasing consumer awareness in the residential voice messaging market has also resulted in increasing demand for new features and new functions. Manufacturers of telephone answering devices have introduced a wide array of new features including digital recording and playback media, and feature integration including caller ID, multiple mailboxes,

---

<sup>64</sup> See Georgia MemoryCall, Hearing Transcript at 269, 387.

<sup>65</sup> Frost & Sullivan/Market Intelligence, Voice Messaging Service Markets, at 3-7 (1993).



name and number logging, time and date stamping, and call blocking capabilities in response to this demand. Along with this added functionality, the price for telephone answering machines has continued to drop while improved customer service options such as 800 number "help lines" and extended warranty availability are being offered by a number of major vendors.

As a result of these developments, the market place for residential voice messaging services has remained extremely competitive. At the same time that the BOCs were expanding their voice messaging offerings, the answering machine market continued to show steady growth. In fact, the sales of answering machines in the United States have continued to climb from about \$838 million in 1989 to about \$1.1 billion in 1994.<sup>66</sup> That this market remains intensely competitive is also evidenced by BellSouth's estimate that in its region alone telephone answering machine home penetration rates reached 61% by year end 1994. This compares consistently with estimates of nationwide average penetration rates of 28% in 1989 to 66% in 1994.<sup>67</sup>

This burgeoning demand for customer control of messaging capabilities continues to drive market innovation. New personal computer plug-in boards offer both business and

---

<sup>66</sup> Yankee Group, YankeeVision Consumer Communications White Paper, "Voice Messaging Services vs. The Answering Machine", Vol. 12, No. 1, at 4 (Jan. 1995).

<sup>67</sup> Id.

residential customers enhanced personalized voice mail capabilities for around \$200.00. Cellular and paging message service enhancements continue to be introduced almost weekly, while new technologies and increasing demand promise a wide array of voice-to-text, text-to-voice, and possibly even automatic foreign language translation service features as part of future voice messaging service options.

In short, BOC participation in the voice messaging service market has both directly provided and indirectly stimulated voice messaging service options that had failed to materialize under prior separate subsidiary requirements. Significantly, the BOCs have provided or stimulated these benefits while achieving only a very small share of the potential market.<sup>68</sup> This result is in stark contrast to the dire predictions that surfaced in the Commission's past reviews of structural relief that the BOCs would effectively dominate and squelch competition in the markets they chose to enter.<sup>69</sup> Those predictions have now been shown to be way

---

<sup>68</sup> See, e.g., Hausman and Tardiff, Benefits and Costs of Vertical Integration of Basic and Enhanced Telecommunications Services, at 10 ("Hausman and Tardiff"), included herewith as Appendix A.

<sup>69</sup> The absence of detrimental impact on competition in other enhanced service markets BOCs have entered is also evident by the explosive growth in those markets. As Hausman and Tardiff recount:

Value added network (VAN) services have grown from \$0.5 billion in 1989 to \$3.4 billion in 1993. Subscribership to all video text gateways increased from 715,000 to 6.3

(continued...)

off the mark. Accordingly, any similar assertions, which are likely to be made in this proceeding, should not be countenanced.

B. A Separate Subsidiary Requirement Would Jeopardize The Foregoing Benefits, With No Attendant Alternative Benefits.

A separate subsidiary requirement would destroy the opportunity for replication of public benefits like those described in the foregoing section, with no offsetting expectation of an alternative mechanism to drive such benefits. Thus, the true cost of a separate subsidiary requirement is the opportunity cost of foregone benefits. Notwithstanding opponents' routine assertions to the contrary, the ubiquitous nature of the BOCs' sales channels and marketing operations provides a legitimate asset that

---

<sup>69</sup>(...continued)

million in 1994. . . . E-mail subscribership has grown from 6 million in 1989 to over 13 million in 1993. E-mail revenues increased from \$574 million in 1989 to \$740 million in 1991 and an estimated \$1.2 billion in 1994. BOCs have not attained anything remotely close to a dominant position in any of these enhanced market segments.

Hausman and Tardiff, at 8-9 (citations omitted). That these markets are thriving without a large BOC presence provides no grounds for the argument some are sure to make that the Commission does not need to grant structural relief. To the contrary, these data demonstrate that, precisely because these markets are thriving with existing safeguards, there is no need to reimpose costly structural safeguards for effective BOC participation.

should be used to make enhanced services as widely available as possible.<sup>70</sup>

As the Commission has repeatedly found, provision of enhanced services on an integrated basis with basic services can result in operational efficiencies, economies of scope, and cost savings by avoidance of separation and or duplication of assets and personnel that would be required by a separate subsidiary requirement. Throughout these proceedings, opponents of structural relief have not produced any evidence of comparable benefits fostered by a separate subsidiary requirement. That enhanced service markets are growing robustly and are already competitive, as many are sure to argue, proves nothing about "benefits" of separate subsidiary requirements. All those arguments do is undermine the assertion the same parties make that the BOCs will have the ability to enter these competitive markets and interfere with their competitive functioning.

That such assertions and predictions are unfounded is evident from the fact that none of that has occurred. Indeed, as Hausman and Tardiff point out, since the BOCs

---

<sup>70</sup> That not all enhanced services are as readily integrated into existing sales channels as are voice messaging services is no reason to deny the opportunity. BOCs should have the flexibility to integrate their sales channels and other operations to the extent marketplace needs warrant it for different services, or for different applications (niche markets) of similar services. For this reason, the Commission should reject any suggestions of a regulatory framework under which safeguards would be tailored to "fit" a particular enhanced service or market.

have been authorized to provide integrated enhanced services, output and consumer welfare have grown substantially, negating any claim of anticompetitive effect.<sup>71</sup> Moreover, as the recently filed CEI plans and plan amendments indicate, the BOCs have continued to approach enhanced service markets conservatively. A key reason for this, of course, is that the Commission's nondiscrimination safeguards are effective and ensure that the BOCs must contend with the same competitive market pressures as other participants. Thus, BOC participation in enhanced service markets is already constrained by existing competition in those markets. A separate subsidiary requirement is therefore not required.

C. Moving Existing Services To A Separate Subsidiary Would Cause Significant Customer Confusion, Higher Service Costs, And Potential Loss Of Service Availability.

In the Notice, the Commission asked parties to identify transitional expenses that would be borne by customers of BOC enhanced services, and to indicate whether a return to structural separation requirements would result in disruptions of service or confusion among customers. As shown below, the reimposition of a separate subsidiary requirement on currently integrated operations would cause significant confusion for customers utilizing those services, would cause the BOCs to incur higher costs of

---

<sup>71</sup> Hausman and Tardiff, at 8.

providing those services leading to higher prices for those services, and could lead to loss of service availability in some areas. Such a result is clearly antithetical to the public interest.

If BellSouth were required to offer voice mail service on a structurally separate basis, the cost impact would be significant. Although all aspects of the operation would incur increases in costs, they can be generally qualified in four categories: sales, advertising, customer service/repair, and facilities costs. Overall, BellSouth projects that its unit cost of providing a voice mailbox would increase by 176% over a six year planning period as a result of a separate subsidiary requirement.

Operating as a structurally separate entity would mean the loss of marketing opportunities from existing sales channels. The loss of these opportunities would need to be countered through another sales channel. At a minimum, this would mean the addition of personnel to perform this function, as well as utilization of different sales contacts, such as telemarketing and direct mail. Naturally, the efficiencies of existing integrated sales would be lost as the range of products offered on a single contact would be reduced. New sales channels are likely to be less effective as well. For example, most customers are reluctant to buy from telemarketers. BellSouth customers have a certain level of confidence and trust in BellSouth

which could be lost to some extent through the use of telemarketing, particularly if the "BellSouth" representative does not have access to the customer's phone records.

BellSouth estimates that changes such as these resulting from structural separation would cause a 209% increase in its unit sales costs. Furthermore, the loss of sales opportunities, the increased complexity of sales negotiation, and customer confusion would all amount to a significant decrease in sales. This erosion of the customer base would have further impact on the price BellSouth would have to charge for the service, as well as on the financial viability of offering voice mail service in BellSouth's rural or smaller metro areas.

Operating as a separate subsidiary would also trigger an increase in advertising expense. Two factors contribute to this increase. First, operating as an integrated entity, costs for jointly advertising MemoryCall and the associated complementary network services are shared between the services in accordance with the Commission's rules. As separated offerings, separate advertising campaigns would need to be developed, the total cost of which would fall on the respective products. The second factor contributing to an increase would be the need for more advertising. In order to make up for the loss of sales opportunities, MemoryCall would be required to advertise more. Additional

advertising would be required to increase customer awareness, alleviate some of the resistance to telemarketing, and reassure customers that, although MemoryCall is a "structurally separate company," it's service quality and customer service are just what they would expect from BellSouth.

BellSouth projects that advertising costs for MemoryCall operating as a separate entity would need to increase by 300%. Despite this increase, advertising would be less effective due to customer confusion. Once again this would have a significant impact on sales rates, per unit costs, and MemoryCall penetration into the smaller metro areas.

Once the sale is made, customer service and repair become the major areas impacted by structural separation. As a structurally separate company, MemoryCall would be required to obtain new and dedicated systems and personnel to provide these functions. Of course, new and additional floor space would be required to house the new personnel and equipment.<sup>72</sup>

Any reduction in the perceived quality of customer service would result in diminished sales and increased churn

---

<sup>72</sup> Similarly BellSouth would be required to duplicate a number of administrative functions and support systems, such as those that provide service order entry, service provisioning, tracking and billing. Additional and separate floor space would also be required to house these new systems and the personnel to operate them.



rates. Many customers will not tolerate any increase in the complexity of the service. Structural separation, by definition, will increase that complexity and will certainly lead to a reduction in BellSouth customer base for voice mail services. Therefore, not only will the total cost to provide customer service increase, but also the number of customers will decrease. Both factors compound to produce a much higher per mailbox cost to provide customer service. BellSouth estimates the increase in customer service costs at 40% per mailbox.

Because MemoryCall service currently purchases transport facilities at tariffed rates, there would not be as large a direct impact on these costs should BellSouth be required to transition voice mail to a separate subsidiary. However, a decrease in the MemoryCall customer base, brought on by the above mentioned issues would reduce facility efficiency. Generally accepted engineering principles state that smaller trunk groups are less efficient than larger ones. Therefore, BellSouth would incur greater costs for facilities on a per mailbox basis as the customer base eroded. In some areas, BellSouth's MemoryCall service customer base is so small only one voice storage platform is required. Obtaining separate conditioned floor space with security, maintenance personnel and back-up power for one platform could become cost prohibitive. These problems would have the greatest impact on BellSouth's smaller

metropolitan areas. BellSouth projects that converting to a structurally separate entity would increase the cost of goods sold by 105% on a per mailbox basis over the six-year planning period.

In short, BellSouth projects its overall cost of providing voice messaging service to increase 176% (weighted average of the foregoing components) over a six year planning period. Clearly, the costs of separation are significant.

These costs, of course, do not all fall only on BellSouth, but also on customers. Customers would likely see an increase in what BellSouth charges for MemoryCall service. It is unlikely that BellSouth MemoryCall could absorb the total cost impact of transitioning to a separate subsidiary without passing some of those costs on to consumers. There is even question as to whether MemoryCall would be a viable product on a separated basis. The increases in the cost of providing the service and subsequent increases in price could exceed customers' general willingness to pay.

Even if MemoryCall service remained viable within the region as a whole, it likely would not in some of the smaller metro areas. This would result in a withdrawal of service from the smaller, less profitable areas. This represents the second cost to the consumer. Customers in smaller, more rural areas would be impacted the most,

potentially losing the option of MemoryCall service entirely.

Customers would also suffer not only from the higher cost of operating a separate subsidiary, but also from the costs and confusion caused by the transition to that environment. Such a transition would be extremely costly, difficult, and tedious. BellSouth currently has over 1.2 million mailboxes in service. MemoryCall service is available in more than 60 metropolitan areas and is served by over 100 individual voice mail platforms in 59 locations. In order to transition to a separate subsidiary, BellSouth would be required to locate, obtain, and condition floor space to house this equipment. In addition, BellSouth would be required to reconfigure many of the 11,000+ circuits in place which form the communications backbone of the service.

Because BellSouth would attempt to minimize service disruption for its customers, facilities and platforms also would have to be temporarily duplicated. Unfortunately, no amount of preparation could prevent all mistakes, and some service disruption would be likely. Customer orders would have to be frozen near the "cut" date. Also, customers would likely lose service or messages during the conversion to a new platform and may lose their mailbox contents entirely. Due to the magnitude of the conversion, it would likely take many months to complete. Any problems with the

transition would leave customers with a resentment for network based enhanced services.

In addition to the physical transition of customers to new facilities, customers would need to be educated on their new contacts for sales and service. All customer support personnel and their equipment would have to be in place before the first customer is informed. Mailouts would then be sent to customers informing them of the change. Customers currently place thousands of calls per month to BellSouth regarding MemoryCall service. The massive transition process would be very confusing to customers both during and after the changeover.

In summary, BellSouth has seen tremendous acceptance of voice mail service as a consumer oriented enhanced service. This is evidenced by the dramatic growth in the number of customers for MemoryCall service. Part of the reason for voice mail's success in the consumer marketplace is the fact that it is offered on an integrated basis. From the customers' perspective, MemoryCall service is available simply by calling their "telephone company" and ordering it. It is a reasonably priced service which offers attractive features and at a price which is competitive with the voice mail alternatives.

A retreat to structural separation for voice mail operations would increase costs, cause customer confusion and irritation, and certainly lead to a decrease both in

consumer use of existing voice mail services and in early adoption of future enhanced services. Indeed, a structurally separate environment would likely result in the end of voice mail service as a mass market, consumer service. None of these outcomes can be considered positive for the marketplace or consumers. Accordingly, no separate subsidiary requirement should be imposed.

#### CONCLUSION

As shown above, the Commission's ONA safeguards, ever absent "fundamental unbundling," have been and are effective in deterring or preventing discriminatory behavior by the BOCs. Experience and evidence also demonstrate the substantial benefits to consumers attained and attainable under structural relief and, conversely, the significant costs to consumers of a separate subsidiary requirement.

These showings compel a single conclusion: structural relief is in the public interest, separate subsidiaries are not. The Commission thus must reaffirm its structural relief policy in this proceeding.

Respectfully submitted,

BELLSOUTH TELECOMMUNICATIONS, INC.  
By its Attorneys



M. Robert Sutherland  
A. Kirven Gilbert III

4300 Southern Bell Center  
675 West Peachtree Street, N.E.  
Atlanta, GA 30375

Date: April 7, 1995

**BENEFITS AND COSTS OF VERTICAL INTEGRATION OF BASIC  
AND ENHANCED TELECOMMUNICATIONS SERVICES**

Jerry A. Hausman  
MacDonald Professor of Economics  
Massachusetts Institute of Technology  
Cambridge, MA 02139

and

Timothy J. Tardiff  
National Economic Research Associates  
One Main Street  
Cambridge, MA 02142

April 6, 1995

## **BENEFITS AND COSTS OF VERTICAL INTEGRATION OF BASIC AND ENHANCED TELECOMMUNICATIONS SERVICES**

### **I. Introduction**

The FCC is in the process of reviewing its policies to determine the form in which the Bell Operating Companies (BOCs) may participate in the enhanced services market.<sup>1</sup> FCC regulation of enhanced services has previously addressed two potential problems, cross subsidization and access discrimination. The FCC has established two regulatory measures that significantly reduce the risk of cross subsidization. Price cap regulation, which breaks the link between direct costs and rate changes, does not allow the BOCs to raise prices above the rate caps approved by the FCC. The BOCs, therefore, do not have the incentive to set lower rates for regulated services used in the provision of enhanced services in the hope that they can increase prices for other regulated services. In addition, the FCC has implemented cost accounting rules, including detailed joint cost rules, cost allocation manuals, reporting requirements and accounting audits, that increase the ability to identify cross subsidization.

Access discrimination can arise when preferential network access is given to an BOC's affiliated enhanced services provider over a non-affiliated enhanced service provider. The FCC decided that network unbundling, in the form of discrete cost-based services and features, for services required to provide enhanced services would insure that BOCs could not discriminate against their competitors. The FCC's Open Network Architecture (ONA) framework and its unbundling policy were designed to accomplish network unbundling for features used by non-affiliated enhanced services providers to compete with the BOCs. In its recent remand decision, the Ninth Circuit required the FCC to explain and justify its decision to allow BOCs to offer all enhanced services on an integrated basis, given the current state of unbundling.<sup>2</sup> The FCC's investigation is, however, broader in scope than the minimum requirements set out by the Ninth

---

<sup>1</sup>Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services, CC Docket No. 95-20, Notice of Proposed Rulemaking (released February 21, 1995).

<sup>2</sup>California v. FCC, 39 F.3d 919 (9th Cir. 1994) ("California III")



Circuit. An important factor in the FCC's reconsideration will be determining whether the economic benefits to be gained by permitting vertical integration of BOC basic and enhanced services exceed the possible costs imposed on consumers of not requiring structural separation.

This paper identifies and quantifies the potential benefits and costs of vertical integration of basic and enhanced telecommunications services. In particular, we find that joint production facilitates the offering of new products and services, which provide large benefits to consumers. Focusing on voice messaging -- to date the most prominent Regional Bell Operating Company enhanced service -- we calculate that the delay in making this service available has cost consumers well over \$1 billion annually. The cost to consumers of delay has exceed well over \$10 billion since 1981. In addition, the extra production costs that would be incurred by foregoing the economies of scope from joint production would amount to over \$100 million annually. In contrast, (1) the enhanced service markets in which the BOCs operate are robustly competitive, (2) the existing Open Network Architecture rules followed by the BOCs are designed to offer nondiscriminatory access at prices that avoid cross-subsidies, and (3) all available evidence shows that these rules are working as intended and that the enhanced service market is thriving. It is clear that any benefits to competition that may arise from structural separation are far outweighed by the loss of benefits and extra costs we have identified which arise from structural separation.

The remainder of this paper has five sections. We first describe the economic principles that should guide telecommunications competition. In Section III, we examine the state of competition in information and enhanced services markets. Next, in Section IV, we measure the benefits from offering new telecommunications services. Section V quantifies the costs of structural separation. The final section summarizes our findings.

## II. Economic Principles for Economically Efficient Competition

Telecommunications markets are generally very dynamic, compared to most other markets. Products are proliferating, new firms are joining the fray, and existing firms are adjusting through alliances, mergers, and the like. The market for enhanced telecommunications services is no exception. For voice messaging, which accounts for the bulk of the BOCs' enhanced service revenues, Frost & Sullivan estimated that 1993 revenues from voice messaging services were \$1.4